Hon. Senator Michael Nofs. I am respectfully submitting the following comments to the Senate Energy and Technology Committee 9/2/15 hearing on SB 438 as a private citizen residing in Lyndon Township, Washtenaw County. These comments and the presentation were initially developed to address questions or provide clarification on substantive issues from the August 19 meeting and subsequent public statements in the media. I added a lengthy response to significant statements from the August 26 meeting which were available recently. I am thankful for your consideration and would be pleased to clarify the information or respond to any questions from the Energy and Technology Committee members.

Senate Energy and Technology Committee - September 2, 2015
Submitted General Comments on Michigan Clean Energy Policy
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In 1931 during a conversation with Henry Ford and Harvey Firestone Thomas Edison had this to say - " We are like tenant farmers chopping down the fence around our house for fuel when we should be using Natures inexhaustible sources of energy - sun, wind, and tide...." he went on say "I'd put my money on the sun and solar energy. What a source of power! I hope we don't have to wait until oil and coal run out before we tackle that. I wish I had more years left."

I wish Thomas Edison had more years left too. We should all miss Thomas Edison and not just for his technological achievements. His curiosity and openness to all ideas and new opportunities to improve the lives of his fellow humans, even when confronting conflicting interests, was his true genius. As a student of history, I wonder what Thomas Edison would say about Detroit Edison and the Electric Institute that bears his name today.

Former Edison employee turned arch rival and fierce **competitor**, Nikola Tesla the eccentric inventor whose 200 patents serve as the technical foundation of todays electric industry had this to say:

"If we use fuel to get our power, we are living on our capital and exhausting it rapidly. This method is barbarous and wantonly wasteful and will have to be stopped in the interest of coming generations"

Michigan Solar Energy (Image 1)

Solar energy is abundantly available in Michigan - thousands of times what we use. Solar energy is also abundantly available everywhere in the U. S. - border to border and sea to shining sea. Although it is true that small regional variations exist for a variety of reasons it is relatively

inconsequential. Michigan has nearly as much solar energy as New Mexico when their much higher usage of air conditioning is factored in.

German Renewable Energy (Images 2 &3)

For my last birthday, my daughter gave me a trip to Europe to explore our family history. When we arrived in Germany, we immediately noticed the extensive use of solar energy nicely integrated into society. Even the small groups of 4 to 6 wind turbines spaced out over large distances everywhere seem to fit in nicely. Switzerland and the Netherlands are both aggressively deploying renewable energy in a similar fashion..

The photos of my grandmothers home town speak volumes. Sennfeld is a small farming community of 1200 located in central Germany. The view from the cemetery shows the solar panels in a portion of the community - homes, retail stores, farms, and the community center/bandshell/playground. The farm with the yellow field at the top of the hill has solar panels on the entire barn and house roofs - producing his own energy and supplementing his rapeseed crop that is used to produce biodiesel fuel. The wind turbines at the Autobahn ramp supplement local energy as does the large utility field of solar panels along the highway.

The how was easy. With the agreement and consent of all segments of society, including electric utilities, the resulting legislation put 3 fundamental policies in place - grid access for all without limits and a market based electricity pricing reflective of both direct and indirect costs. Private investment from individuals, businesses, municipalities, industry, and utilities given equal consideration and value. Public support for continued renewable energy development has risen from 70 to 90% since it has been implemented.

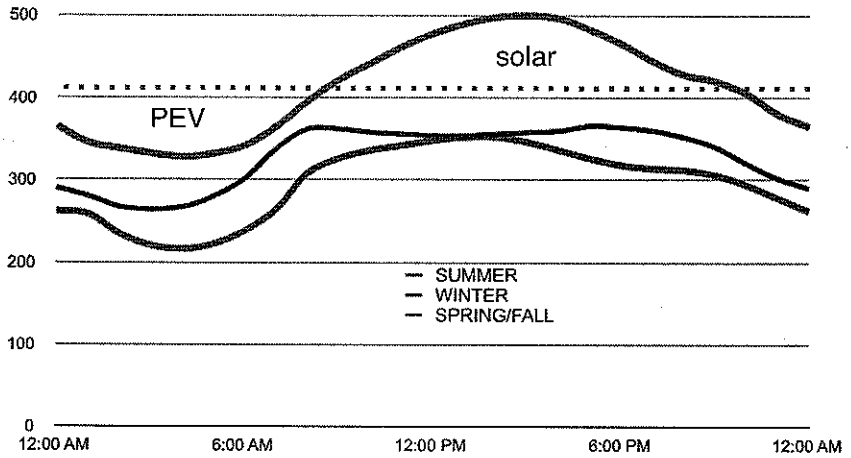
Solar Economics (images 5 & 6)

At the August 19 meeting I believe Senator Horn asked a question about rate of return for EARP(lottery) participants citing payoffs of 50 to 70 years. I am not an accountant but understand assumptions affect results which can vary accordingly. I am presently participating on both the EARP and PEV so I will share my experience with all - including financials. The numbers speak for themselves and are accurate/representative and not 50 to 70 years.

My experience with Consumers Energy has been outstanding. The employees are all excellent and enthusiastic and proud to be part of these programs. I

am a little taken back about the CMS testimony but like to believe in their heart CMS would like to withdraw support.

One recommendation I do have to simplify and improve the EARP solar and PEV use programs. Utilize the PEV time-of-use program for solar customers



Supply & Demand Time-of-Day Pricing

with net energy billing combining them into one for all solar and PEV customers. In my case, I am paid $0.26 for solar generated energy, all on peak, and am charged $0.23 on peak and $0.09 off peak in the summer. This proposal will reduce my price $0.03 to parity with the retail electric price with a similar reduction for winter prices. I think the time-of-use program is more representative of the cost of electricity by factoring in market demand. It seems like the fair and reasonable thing to do and would gladly give up my $0.03 "subsidy". CMS can still count my investment as part of their generation portfolio. Broad scale solar and PEV use will flatten the demand curve to reduce high cost peak capacity and increase cleaner, low cost base capacity for the utility. Everybody wins.

General Principle

Increase solar energy use as fast as possible across all societal boundaries and foster broad scale market based private solar investment policies

Generation Recommendations

1. Replace the CMS Energy EARP program with a combined net billing/PEV time-of-use program for all solar and PEV customers and expand to DTE, muni's, and REC's.
2. In fact, time-of-use metering should be standard for all customers.
3. Foster a stand alone solar based electric plant market for seasonal homes, remote cabins, and applications beyond the grid
4. Encourage an increase in the generating capacity of the 50 municipal electric utilities, Lansing and my home town of Chelsea, for example, and the 7 rural electric co-operatives serving 750,000 of the most remote homes, businesses, and communities throughout the state.
5. Foster the development of stand alone solar based home electric plants for country homes and develop the long term capability to reduce rural lines were practical instead of rural system end of life replacement.
6. Privatize the REC's to sell solar hybrid home electric plants and rooftop solar to customers and earn a profit.
7. Open the grid and transition to a full market based electric pricing that is inclusive of both direct and indirect costs.
8. Bury the old, unsightly, unsafe, unreliable power lines in the cities where ever practical or improve the appearance and integrity of overhead lines.

Electric Industry Subsidies

The electric industry has a rich history of significant "subsidies" - too numerous to list. Statistically, one electric customer or segment has been and continues to be subsidizing another in some form, manner, and/or degree for some perceived beneficial reason for over 100 years. The historical list of subsidies to the established electric industry along the entire energy life cycle are numerous and significant nationally, regionally, and the state/local level. The effect to individuals, businesses, fairness, equality, good governance, established shared principles, and well being can, a sometimes does, have negative, misguided, and/or counter-intentional consequences. A short list of subsidies would include:

- The architect of the privately-owned, state regulated, competition and risk free, public, electric utility monopoly was Samuel Insull. He built the giant "Commonwealth" Edison by charging homes and apartment tenants 25 times as much as industrial customers. The industrial customers were charged less than the cost of coal - so they wouldn't buy their own power plants and compete with him. Commonwealth's 600,000 private investors were left penniless when his highly over-leveraged electric holding company empire collapsed in 1932. Congress passed the Public Utility

Holding Company Act in 1935 to "regulate" risk free electric utility investing with other peoples money.

- In May of 2015, Michigan electric customers paid the following price for electricity by sector - Residential $0.1423, Commercial $0.1089, Industrial $0.0734. (U.S.DoE-EIA)
- DTE Energy provides both a residential flat rate and time-of-day rate that accurately reflects the cost of meeting demand. This effectively "subsidizes" flat rate customers that primarily use high cost on-peak energy ($0.20) during high demand, i.e. a retail store, while paying the low cost flat rate price ($0.14). It also punishes customers that primarily use off peak energy overnight during low demand and pay a higher price ($0.14) than the off-peak energy price ($0.01). For example, running an air conditioner overnight for a sleeping person that worked at the noted retail store. Both rates change seasonally winter/summer and the same "subsidy" based on seasonal usage patterns also exists for each customer.
- The DTE Energy Residential Rate book on file MPSC has 40 different rates for a variety of customer service classifications. Business and industrial customer rates are equally complex with special categories for "preferred", as in subsidized, customers based on classification - some of which may be good such as police/fire and public schools.
- The DTE Energy Basic Residential Service rate is the same for urban, suburban, and rural homes. The overhead power lines in the cities are old, unsightly, unsafe, and unreliable. Most suburban homes paid extra for buried power lines that are safer, more reliable, and most importantly out of sight. A developer that installed overhead power lines in a new residential community would have no customers. The rural network, which is far more expensive because of the distances, was paid in full by U.S taxpayers over 60 years by the Rural Electrification Act. The distances between rural customers is 7 times greater with proportional increases in vulnerability to power outages, distribution power losses, normal maintenance, cost to restore service after outages - frequently affecting nearby communities with buried power lines, and replacement cost.
- 1946 - The Atomic Energy Act converts to Manhattan Project to the Atomic Energy Commission and eventually to the Department of Energy. After 70 years, the DoE stills maintain the 12 national labs and 90% of the taxpayer funding is still devoted to subsidizing the nuclear industry to benefit the IOU's of the electric industry - all of the cheap power from the federal "taxpayer" owned public dams of TVA and BPA for uranium enrichment and the aluminum monopoly ALCOA, Price Anderson Act exemption from insurance for a "nuclear incident" like Fukishima, eternal storage of radioactive waste by a means to be determined and at a cost impossible to calculate - latest proposal is to store it near Lake Huron, America has very little uranium that is 2 times the cost to extract making

it uncompetitive so will most likely be imported from Australia or Kazakhstan.

- 1936 - The Rural Electrification Act is the ultimate electric industry subsidy that fully "taxpayer" funded the entire rural electric transmission and distribution network to rural America. For 40 years, the electric utilities either refused to serve rural customers, small towns, businesses, and communities, even those close to inter-city power lines, or did so reluctantly under very unfavorable terms and conditions. The REA money was given directly to the electric utility companies in the city for nearby unserved country homes or used to set up rural electric cooperatives in more remote areas. In 1938 ,The Congressional Record noted that 220,000 rural homes were connected at a cost of $950 - when the average annual wage was $1713 and the average cost of a new home was $3,925. Today, each country or rural would receive $28,500 to $64,400, depending on family wage or new home cost.

Note: In 1929, Alfred Sloan, President of General Motors, in a letter to shareholders (copy attached) told of the tremendous success, 325,000 sales - 4 times all of the EEI electric utilities combined, and a promising

future, 2,500,000 farms, for Charles Kettering's Delco-Light Farm Electric Plant. Introduced in 1916 to provide electric lights and power to rural areas, GM competed with nearly 70 companies for their 50% market share of the strong demand in rural areas for electricity. In 1936, the most popular Delco-Light could be purchased for $495 with the same capability as an REA installation. The Depression, "free" REA, and conversion to war support destroyed the American free enterprise farm electric plant market experience - including the fledgling wind electric plant manufacturers in the Great Plains.

Solar Subsidies

2015 - Assuming 1800 private solar installations with an average capacity of 3 kW, the total solar capacity would be 5400 kW

Total electric generating capacity in Michigan - 3800 MW

5400 kW / 3800 MW = 0.00142 or **0.14% solar**

The comments submitted by EEI, DTE Energy, and CMS Energy seem to be essentially the same so I will utilize the text of the DTE testimony to respond. I take issue with the fundamental science presented in the testimony as being either incorrect and/or misleading, the use of the Brattle report, and the troubling tone of the DTE Energy presentation from a customer perspective.

Page 3 and 4

DTE "Customers who install rooftop solar panels on their homes utilize the power generated from their system when the sun is shining"

Might read "Valued life-time customers are choosing to invest in solar panels to produce clean energy as an integral part of our established system. We are committed to continue working together for a clean energy future by valuing their investment fairly and equitably at the point of connection."

DTE "However, solar panel customers still depend on the grid everyday, mainly in two ways. First, due to the intermittent nature of solar power, utilities deliver power to rooftop solar customers homes when the sun isn't shining, for example overnight or on cloudy days. Second, when the sun is shining at peak hours and the rooftop system is generating power above the

households own demand, the customer sends that power back onto the grid, and the utility credits the the customer for that customer at that full retail rate."

"utilize the power generated from their system when the sun is shining"

" when the sun isn't shining, for example overnight or on cloudy days."

Misleading, technically, a "solar" panel converts light energy from the "sun" directly to electric energy. A more accurate name would be "daylight panel" since they continue to produce power all day long during peak energy demand hours - even under cloudy conditions, although admittedly less. Only, during extreme weather events with high clouds, heavy rain/snow, high winds, and low visibility does the solar power output temporarily cease. From my experience in a rural wooded area, the power usually goes out in severe weather, 3 to 4 times a year, and my emergency generator, that I invested in as many are doing, kicks on as I patiently wait for the power to be restored.

"the rooftop system is generating power above the households own demand, the customer sends that power back onto the grid, and the utility credits the customer for that excess energy at that full retail rate."

Technically incorrect, misleading, and/or patently false. 'Sends power back onto (into) the grid" is derived from an early over simplification to explain the concept of a grid interconnection.

It is important to define the grid accurately to talk about it. The central station network consists of generation, transmission, and distribution and technically ends at the secondary side of" service transformer". All of this equipment is the financial responsibility of the electric utility and charged to the rate payer (customers) plus a profit guaranteed by the state regulatory agency.

It is the financial responsibility of each homeowner to pay the utility for the wire, overhead or direct burial, and related services from the service transformer to the supplied meter/housing. Additionally, the residential customer hires and pays for a licensed private electrician to make the proper connection between the service wires and meter box. Technically, the customer pays 100% for their service "drop". I belief a long standing utility policy is the service drop becomes the property of the utility legally when complete, effectively DTE selling it at a profit and then taking it back.

Regardless, it is not important to know who owns it as long as you know who paid for it.

Technically "sends power back onto the grid" is false. It is important to understand that "electricity" effectively travels at the speed of light - 7 1/2 times around the earth in one second. The reality is solar panel production and typical home power use both vary throughout day and seasonally. For those moments when solar power exceeds customer demand, what is going on? Typically, a service transformer serves more than one customer. So, the solar energy flowing out through the meter is recorded rushes up the service drop to the secondary terminals of the service transformer. From that point at the end of the utility distribution system, the preferred destination of the solar power is my neighbor(s) that shares the secondary terminals of the service transformer. In all cases, my "electrons" will not travel farther than the next closest appliance(s) demanding the same amount of electricity in an unimaginably small time frame. Generally speaking, excess power is credited to the solar home and billed to the neighbors house virtually "instantly" at the standard residential rate. Technically, the likelihood that solar panels "send power back onto the grid" is so infinitely small as to be irrelevant. Furthermore, the electric utility senses the excess solar power coming "on" remotely in the same fashion as if you turned a light bulb "off". Not that they have the resolution to sense a single appliance but they do know the total electric load of everything using electricity in their service territory and many key intermediate points. By reducing the system end point demand with customer solar, the net impact on the transmission and distribution system is positive by reducing network demand. The positive affect increases with increases in end of service solar.

Actually, solar customers on the DTE net billing program are subsidizing nearby residential time-of-use customers. High cost on-peak customer solar energy is paid at the lower flat rate. A solar customer on DTE Energy net billing program is paid $0.14 on peak which it sells to subsidize the PEV driving, time-of-day pricing customer next door at $0.20 on peak summer rate and pockets the $0.06 difference for a 42% profit - so fast it is almost unimaginable.

DTE - The following 3 paragraphs and chart become mute and an irrelevant exercise.

The Brattle Report

I take issue with the use of the Brattle Report, the public statements of DTE Director of Renewable Energy David Harwood, and the Citizens for Michigan's

Energy Future position on the two billboard trucks. The introduction to the Brattle report states "

"First Solar commissioned the report with support from the Edison Electric Institute. Xcel Energy Colorado provided data and technical support. All results and any errors are the responsibility of the authors alone and do not represent the opinion of The Brattle Group, Inc. or its clients."

First and foremost, The Brattle Report was commissioned by First Solar, a company that sells large solar systems to electric utilities, and in essence is a marketing document and not a credible fact based independent study.

A real independent study by electric regulators in Vermont found otherwise.

"In supporting expanded net metering in Vermont, Green Mountain Power - an IOU, the state's largest utility, and EEI member, agreed with a 2013 report commissioned by Vermont energy regulators that net-metered systems "do not impose a significant net cost to ratepayers who are not net metering participants.""

Secondly, the second sentence of the Brattle Group introduction, *"All results and any errors ..."* should give any reader pause. It appears as though the participants do not believe their own study. A savvy private investor would surely get an independent second opinion, or more, to minimize risk before committing to this study's recommendations - but not DTE Energy. The committee should simply reject this study and its conclusions out of hand.

The authors were constrained by one-dimensional thinking attributable to an unwillingness to accept the failure of the basic axiom that has been the foundation of the central station electric utility industry - the economy of scale.

In a fossil fuel based economy, energy is concentrated - coal beneath the earth and mountains, oil and gas deep underground and beneath the ocean floor. To use it, it must be "distributed" and is converted into a variety of forms in doing so - including electricity.

Solar energy requires a paradigm shift since it is "equally and abundantly distributed everywhere in the U.S. - 1000's of times what we use - including Michigan". It is simply common sense that the most efficient and cost effective use of solar energy involves converting it and using it where it is - which is everywhere! Trying to capture it a single location for distribution to customers that already have it is counter intuitive, illogical, and provably economically inferior to on-sight generation.

If DTE Energy accepts the recommendations and wants to install large arrays of solar panels, I am all for it. Great. But make no mistake, the Brattle report would not serve as the basis for most private investment decisions. I'll "drill a little deeper" myself, thanks, as most prudent investors would.

To utilize a promotional marketing document from a vested interest as a "scientific" study for public policy is poor judgement. The Vermont PSC study is free and "independent". To focus on an unproven, minuscule, or non-existent "solar subsidy" is stepping over dollars to pick up a shinny penny - only to find out it is a washer. To unjustifiably discourage and punish private investment in solar energy is shameful and should be especially embarrassing to DTE Energy. This exercise to end the tremendous "solar" subsidies for a reason without merit, proof, or independent analysis is breathtaking to watch. The "optics" are atrocious and the results are as predictable as is the cause.

Competition and Risk

More troubling than the misleading and inaccurate information, is the underlying negative impacts of the competition and risk free business model that creates a self absorbed "customer hostile" enterprise model. The DTE quote seems to treat "customers" as the enemy that is "using" them to the disadvantage of "other" customers and is shocking on so many levels

A normal, competitive, risk based company that respects and values their customer would never leave an impression like this if they wanted to survive. Customer focus, customer-driven, what does the customer want, what surprise and delight features can we include, what is the customer DNA, ... has driven private industry for the past 30 years to good effect. And it is not just customers, DTE doesn't acknowledge the existence or interest of the 50 municipal electric systems and 7 REC's serving millions over most of the state in the most remote areas or their customers either.

The statement above beginning with "However, solar panel customers ..." should be sent to the tin ear DTE marketing department for rewrite to be more direct and honest .

"Our pesky solar customers suck off the grid even when their stupid solar panels aren't producing, sending excess energy up our grid for full retail payment, and costing his neighbor who isn't foolish enough to waste his money on solar panels"

Competition - Unfortunately, the contempt DTE Energy shows for it's customers is mutual and should be paid attention too.

Imagine for a moment that electric customers were given a "choice" of electric suppliers or asked these questions:

Do you want to buy coal and nuclear electricity from DTE Energy or clean hydro energy from Ontario?

If you could choose the energy source for the electricity DTE Energy supplies would it be - 1.) radioactive nuclear 2.) mountain top or prairie coal 3.) fracking gas 4.) hydro 5.) solar 6.) wind 7.) biofuel/geothermal/other

If you installed solar panels on your home, is it because DTE Energy has refused to develop clean energy for 100 years and you want contribute less to the destruction of our planet and are willing to pay a little more?

If you installed solar panels on your home, would you invest more to disconnect from the grid completely and eliminate your relationship the DTE Energy?

I trust the answers would be obvious without a scientific poll or study to everyone but DTE Energy.

Risk and Reward - It should also be obvious that any real private company with the customer satisfaction rating reflected in the answers to these questions would not exist - let alone be guaranteed a handsome profit every year - forever.

Perhaps, the MPSC should use "customer satisfaction ratings" to set the rate of return to DTE Energy. Electric rates should be set to provide a rate of return tied to their "honest customer satisfaction rating" - as most private companies do. 90% customer satisfaction - full traditional rate of guaranteed return, every percentage short of 90% yields a 2% reduction in the rate of

return, 50% customer satisfaction or less - NO PROFIT! until it gets back above 50%.

Welcome to the American free enterprise system DTE Energy.

The committee should be very careful to understand the growing level of public support for renewable energy development in our state and the reaction to this legislation and the not so secret process that created it. I would advise the committee members to abandon this and corresponding house legislation out of hand and start over or seek policies that actually achieve clean energy environmental and economic objectives. A vital clean energy policy serving the citizens and businesses should consider all interests and hear expert testimony from the wonderful talent pool of our state's best technical and business leaders. Less will fail.

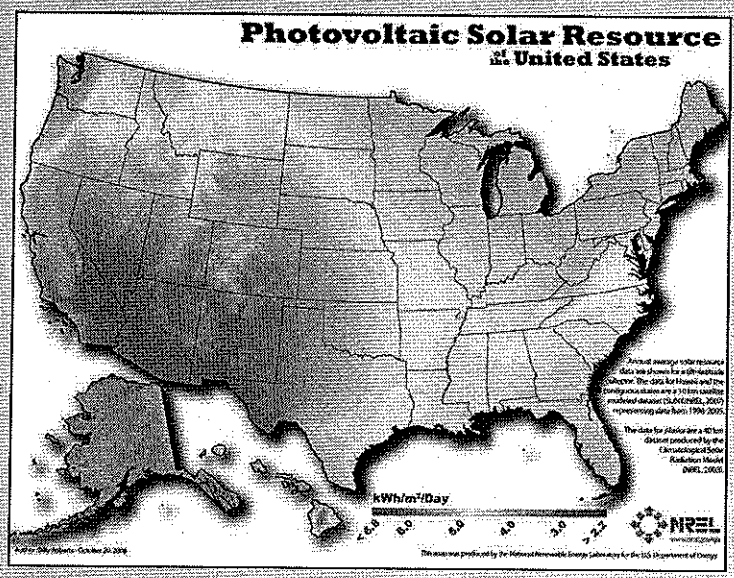
DTE and EEI should take some time for self reflection and chart a better path to serve its customers. The EEI Disruptive Challenges report should be replaced with operating principles consistent with the most cherished ideals of men and women of good will and business - and what the customer actually wants.

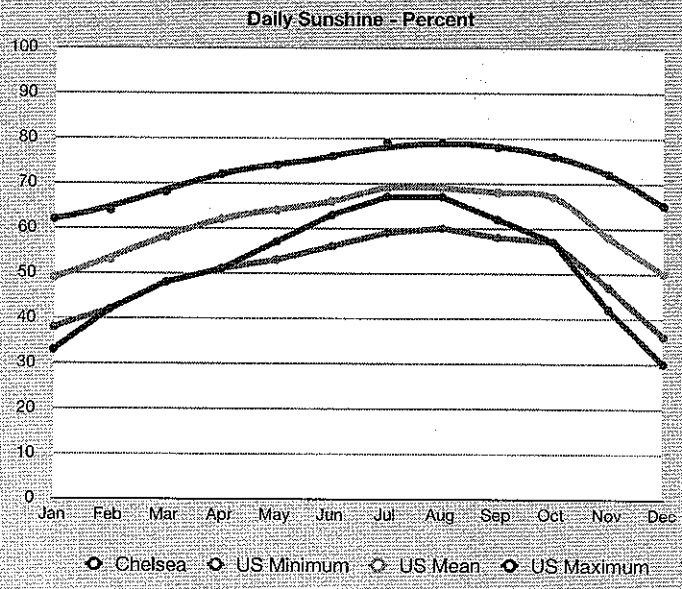
Thank you for considering these comments. Please let me know if i can be of any further assistance.

Craig Toepfer
cbta2@me.com

MICHIGAN SOLAR

An average of 1000 watts of solar energy is received on every square meter of the United States

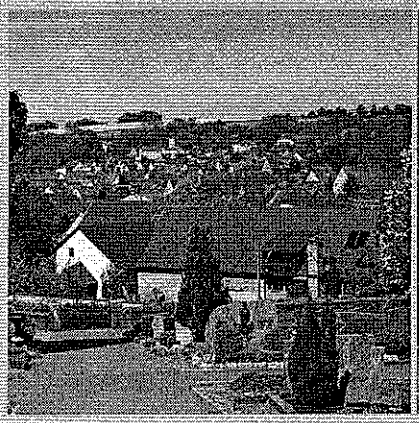




Michigan = 4 kWh/m2/day New Mexico = 6 kWh/m2/day

New Mexico has higher demand for summer air conditioning

GERMAN RENEWABLE ENERGY

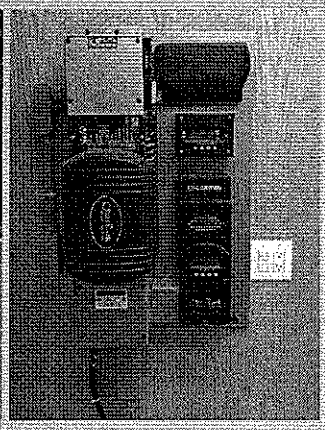


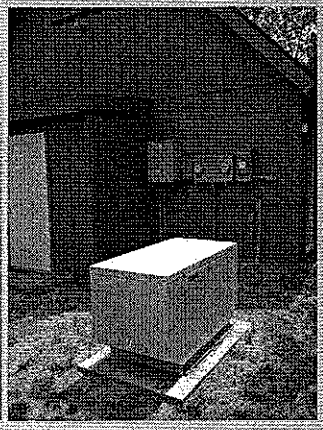
Sennfeld, Germany
population 1200
home, retail, farm,
municipal, community,
and utility solar and wind
electric energy = 34%

GRID ACCESS WITHOUT LIMITS & MARKET BASED ELECTRIC PRICING THAT INCLUDES DIRECT AND INDIRECT COSTS!

The solar panels on the home and barn of this farm in Sennfeld, Germany have the same full power output as the 118 hp PTO drive of this John Deere tractor - without using any fuel. The solar system, in addition to producing all the electricity for the home and farm, is an important source of incremental income that contributes to the primary business success of growing rapeseed to sell for the production of clean biodiesel fuel.

MY SOLAR SUBSIDY





I invested in a 3.4 kW solar system for my home that is connected to the Consumers Energy grid on the Experimental Advanced Renewable Program

I recently leased a Ford Fusion Energi plug-in hybrid electric vehicle (PHEV) and purchase energy on the Consumers Energy PEV time-of-use program. My fuel economy has been averaging 140 mpg

My solar subsidy amounts to $0. 24 / day
I continue to purchase electricity for my home - $x00/month

ECONOMICS

Time of Day Pricing - Summer Rates
DTE - $0.20 on peak / $0.11 off peak
CMS Energy - $0.23 on peak / $0.09 off peak
My CMS Energy EARP rate is $0.26 / kWh or $0.03 / kWh more than $0.23 / kWh on peak

The average automobile in the U.S. travels 29 miles/day
The design life of an automobile is 150,000 miles or 10 years at 15,000 miles/year
Fuel cost at 25 mpg combined city/highway = $18,000 to $24,000 @ $3 to $4/gal

My solar panels produce an average of 8kWh daily on peak - $ 2.48
My PHEV requires 7+ kWh daily to fully charge off peak - $0.75
displacing one gallon of gasoline @ $3 - $4 for a total daily yield of $4.73 to $5.73
A 3.4 kW solar system with panels, inverter, wiring, mounting frame, all miscellaneous hardware, and freight (to MI) cost = $5,500
Typical installation cost by a licensed electrician/installer would = $1,500 - $2,000
Total installed cost = $7,000 - $7,500 less 30% Fed tax credit = $4,900 - $5,250
At $3/gallon the payback on $4,900 / $5,250 = 2.84 / 3.04 years
At $4/gal the payback on $4,900 / $5,250 = 2.34 / 2.51 years
The solar panels are guaranteed for 30 years and actual life expectancy is typically much longer
Accordingly, the ROI outpaces inflation and interest and increases with time

GENERAL MOTORS CORPORATION

BROADWAY AT 57TH STREET, NEW YORK, N. Y.

To THE STOCKHOLDERS:

Before the days of the motor car, ten miles often meant real isolation for the farmer. Today the good-roads movement is bringing turnpikes past his gates; the ruts and mud holes are fast disappearing. He gets his daily paper, his morning mail. His crops are nearer to the market because the motor truck has reduced miles to minutes. One of the fundamental forces that has been taking place in American life during the past twenty years has been the emancipation of the woman on the farm, and this has been brought about by the adoption of domestic labor saving equipment and devices.

The motor car is indispensable, if the farmer's family is to enjoy the social and educational advantages of the city. With the automobile, a second force has been at work to bring a new day for the farmer—and a new evening, too. That force is electricity. The Delco-Light Company at Dayton, Ohio, a subsidiary of General Motors, was a pioneer—making possible the home electric plant, bringing electric power and electric light and running water, everyday modern necessities, within the reach of those who till the soil, thereby making farm life more livable.

Within the past ten years the electric light and power companies, which originally confined themselves to cities and the larger towns, commenced to construct their great power lines and reach out to serve the more densely populated of the rural communities.

There is no conflict of interests between Delco-Light and the great central power stations. The two have interests closely allied and are working in complete harmony, hand in hand in the common cause. Their efforts are supplementary and complementary each to the other. United they form a great constructive force for farm betterment, bringing electricity with all the comforts and conveniences this modern tool places within the reach of man. D-L Water Systems operate from electric power supplied by Delco-Light or by power from the central stations, thus being adaptable to city as well as country homes. As a result a number of the larger public utility companies, through their merchandising departments, are now selling D-L Water Systems.

There are over six million farms in the United States, of which only 600,000 already have electric service. There are over two and one half million farms which represent the logical field for immediate expansion of rural electrification through installation of individual plants. The market has barely been scratched, although over 325,000 Delco-Light plants have already been sold and this number exceeds the combined sales of all individual electric plants of other makes.

For thirteen years Delco-Light service to the farmer has been to transform dark houses into bright and cheerful homes. It frees the hand that carries the lantern It gives the farmer water supply for his livestock, through the D-L electric water system which also brings the housewife running water in her kitchen, and makes possible modern bathrooms. Electric power plants turn the cream separator and the churn; wash the clothes; heat the iron; operate the Frigidaire, the automatic refrigerator. These products have thus lifted heavy tasks from human shoulders and performed them in half the time.

Delco-Light products may be purchased, under the GMAC plan, with a small initial deposit and the balance in payments to meet the convenience of the buyer. These things are called to your attention because as stockholders you are concerned with the financial success of every member of the General Motors family. If General Motors stockholders, as favorable opportunity presents itself, will tell their friends about Delco-Light, and D-L water systems they will have put behind these products the weight of their personal influence and their recommendation will be a powerful sales stimulant.

Yours very truly,

ALFRED P. SLOAN, JR.,

President.

May, 1929.